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Challenging feedback myths: values, learner involvement and promoting effects beyond the immediate task

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Abstract

Introduction:Research suggests that feedback in the health professions is less useful that we would like. In this paper we argue that feedback has become reliant on myths that perpetuate unproductive rituals. Feedback often resembles discrete episodes of educators 'telling' rather than an active and iterative involvement of learners in a future-facing process. With this orientation towards past events, it is not surprising that learners become defensive or disengaged when they are reminded of their deficits.
Approach: We tackle three myths of feedback: 1) feedback needs praise-criticism balancing rules; 2) feedback is a skill residing within the teacher, and 3) feedback is an input only. For each myth we provide a reframing, with supporting examples from the literature.
Implications: Equipping learners to engage in feedback processes may reduce the emotional burden on both parties, rendering techniques such as the feedback sandwich redundant. We also highlight the benefits for learners and teachers in conceptualising feedback as a relational activity, and in tracing the effects of the information exchanges. These effects

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may be immediate or latent, and may represent different forms such as changes in learner evaluative judgement or professional identity.

Introduction

Some educational rituals are so deeply ingrained and so ideologically seductive that we accept them as practices that don't need to be challenged. Providing 'balanced' feedback to health professionals or health professional learners represents one of those traditions, further legitimized and embedded in practice through models such as the "Pendleton System" and the "Feedback Sandwich". Research over the last 20 years, particularly in workplace-based feedback, reveals that feedback does not always have the effects on learners we would hope for [1].

Close examination of feedback episodes suggests that the "Feedback Sandwich" may not have the desired effect of increasing palatability, but rather results in both learners and educators investing energy in the wrong places [2]. Educators craft what they think are sensitive comments and deliver these in ways that may be hard to decipher by anyone other than the educator themselves, while learners expend energy in decoding these one-way narratives or focus only on praise. Worse still, both educators and learners may avoid or deflect feedback all together [3-5] to avoid the inevitable bitterness. Educators' compensatory linguistic mechanics not only chew up valuable grey matter megabytes for both parties, but we argue that even more damaging is the underpinning philosophical message that information orientated to how the learner can improve needs to be buffered or offset by 'good news'. This information, after all, is often labelled 'negative feedback' by the learner, and the wider academic community [6, 4].

In this paper we argue that involving the learner in feedback processes is the best way to navigate the emotional responses that are reported in teacher-led feedback rituals, characterised by one-way information transmission. That is, that arming learners with feedback literacy, or the "understandings, capacities and dispositions needed to make sense of information and use it to enhance work or learning strategies" [7]. Part of learner feedback literacy is indeed learning how to anticipate emotion and manage emotions in relational

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activities, particularly when there are disparate perspectives on performance between learner and the 'other' being teacher, peer or patient [4].

After a prolonged season of seeing (and researching) feedback as an input mechanism only, we argue for a refocus on feedback as a process involving setpoints (standards), inputs and outputs - that is, feedback that makes a difference to learners. We also argue for a clearer focus on the situated and relational nature of feedback, where 'feedback rules' do not stack up across contexts. Our conceptualisation of feedback is represented by the definition:

> *"Feedback is a process whereby learners obtain information about their work in order to appreciate the similarities and differences between the appropriate standards for any given work, and the qualities of the work itself, in order to generate improved work".*[8]

This broader understanding of feedback as a process enacted over time, rather than a once-off exchange of information from teacher to learner, challenges the notion that feedback is an input- typically, an input of telling. Using this definition of feedback, the learner is active in seeking the information they need to make judgements about the quality of their own work, and they use this self-generated and externally-generated information to improve their learning strategies or future work. By necessity, in order to close this loop, learners need to access a subsequent performance opportunity in order to translate these new understandings into practice. This view of feedback demands that we focus on learners' judgements, priorities and actions, rather than on what teachers do for them [9].

Myths ready for challenging

We explore the following three myths that have become deeply rooted in feedback practice and offer reframings. These entrenched characteristics have been documented in observation and interview-based studies of feedback in the classroom and workplace, and feature as anchors in professional development 'feedback resources' for educators:

1. Feedback needs praise-criticism balancing rules (values ignored)
2. Feedback is a teacher skill (learners ignored)

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3. Feedback is an input only (effects ignored)

Challenge 1: the need for praise-criticism balancing rules

Research suggests that learners struggle to implement feedback in practice [10-12]. Learners also report negative emotional reactions when receiving feedback, which may have effects beyond the educator's intent, and beyond the episode of engagement [13]. Educators painstakingly craft 'feedback messages' and deliver these to recipients with the dual goal of improving learner performance and maintaining learners' self-confidence and their confidence in the educational partnership. Attempting to preserve learner face and confidence, in light of 'delivering a blow,' has resulted in recognisable rituals of providing praise and providing constructive or 'negative' feedback in equal measure- or, in the case of the feedback sandwich, a carbohydrate-rich casing of praise with the intent of leaving the learner in a state of equanimity.

So called 'balanced' methods of feedback delivery – for example the feedback sandwich where the learner is insulated from the negative or critical element in the feedback message by the positive padding- are promoted as helpful for the teacher who finds constructive feedback difficult. The intention behind the ritual is to be considerate of the learner's feelings and to protect the educator's conscience [14]. However, through its very focus on positive/negative/positive it is highlighting a conceptualisation of feedback as information, rather than a process where information is used to improve work or learning strategies. Interestingly, criticisms of this approach date as far back as the 80s with recognition of the potential for 'positive feedback' delivered with reinforcing intent to be seen as padding by the learner and therefore threatening the authenticity of the process [15].

In the coaching literature, the focus on sandwiching takes on different connotations – John Woden was known for a sandwich approach to skills demonstration in the 70s where he demonstrated ideal form, then incorrect form and finished again with ideal form as a way of reinforcing correct performance [16] - no negative feedback in sight just a clear demonstration of potential errors. This technique was subsequently adapted by Docheff to a different version of a 'Feedback Sandwich' which includes a positive statement, followed by specific performance related information and then motivation. Note the absence of negative in the

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"sandwich" – positive, specific, then motivation. In the example Docheff's provides (1990) there is no criticism contained in the feedback – "Good job, Bob. With your elbow in like that you will always have good alignment when shooting the basketball. Keep up the good work." [17]

Pendleton et al's rules of feedback delivery were developed to provide feedback after observed patient consultations in the context of ongoing relationships between GP trainees and supervisors [18]. As such they recommend a sequence of engagement in feedback where the learner is invited to identify elements of good performance, and then the teacher identifies strengths, then the learner discusses elements which could be improved and makes recommendations for how they might go about this, followed by the same input from the teacher, the two have a discussion and resolve any disagreements and the learner should be left with a clear summary of strengths and a plan for actions which might lead to improvement. Consistent with the feedback sandwich, Pendleton and colleagues highlight the importance of making deposits (positive statements) before withdrawals (critical statements) and, in a sense, their focus is also on balance. However, they also argue that early learner engagement helps them feel in control, builds their self-assessment skills, and helps the supervisor gain insight into learner self-perception. However the long term follow up, i.e. closing the feedback loop, is not explicitly reinforced in many retellings of this method, and thus we suspect, left off the radar of many following these rules.

Reframing: The value of 'values-led' feedback

One of the consequences of our concern with how we 'deliver' feedback through sandwiches or other prescriptive models is that we become obsessed with our feedback delivery skills. This may lead us to the erroneous conclusion that saying the right words at the right time is all that is necessary to help our learners improve. There are many consequences to this, not least tokenism, where what is intended to be educative becomes formulaic [19]. What else might we do other than 'give' learners a balance of positive and negative feedback?

The simulation-based learning literature may be a source of useful advice. In simulation-based education, facilitators debrief learners after an experience in order to learn.

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Debriefing and feedback can be viewed as "different sides of the same coin" [20] . Debriefing is positioned as: "a facilitated reflection in the cycle of experiential learning to help identify and close gaps in knowledge and skills" [21]. In line with this, debriefing practices come without some of the unwelcome associations of mythic feedback. 'Let's debrief' is a markedly different request to 'let me give you some feedback'.

There is an extensive literature on debriefing [22, 23]. A 2015 interview study investigating practice features of expert debriefers in immersive manikin simulation suggests that experts don't focus on words [24]. Experts' *values* – for example, dedication, honesty, genuine curiosity and learner-centredness – were significant influences. Experts also described the *artistry* of debriefing, including 'thinking on their feet', where they dynamically adapted to their learners and their context. Finally, they described specific *techniques* such as developing a plan of action, promoting learner reflection and managing learning objectives. However, Krogh et al (2015) saw these as the least significant and suggest that debriefers' educational values formed the foundation for their overall approach.

We suggest that this study provides valuable insights for feedback practices and processes. Thinking about the values that underpin feedback exchanges may be a critical first step. If you are wanting to tell the student why you are right and they are wrong, then this message will be clear even though your phrasing might draw from student-centred models. In debriefing, it is common to declare the core educational values to learners at the start of any simulation session, for example articulating "a commitment to respecting learners and understanding their perspective" [25]. This is done before any debriefing or even any task is undertaken that might generate feedback information. This commitment lays the ground for work that is to follow.

The debriefing literature acknowledges the importance of these values-based approaches, but also recognises that those who are not expert may require scripts [21]. However, the aspiration is to be dynamic and responsive to context rather than formulaic and generic. Krogh *et al* (2015) found that expert debriefers were constantly seeking to develop themselves. They had come to find 'comfort with discomfort' and had begun to use uncomfortable debriefings as learning opportunities [24]. This has direct parallels for teachers

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who engage in feedback exchanges where reciprocal vulnerability can work as a mechanism for development [26].

Challenge 2: Feedback is a teacher skill

The rituals we now take for granted as 'feedback' may detract from, or indeed sabotage, the very purposes of feedback as a process enabling learner changes in knowledge, skill and identity. Learners are relatively absent in the equation, apart from providing the stimulus for a feedback occasion (work). This brings us to our second myth, that feedback is a skill that resides in the teacher. Higher education initiatives world-wide focus on improving the 'feedback telling' skills of teachers, and very few institutions focus on how to help learners to engage in feedback processes [27, 7].

The perceived usefulness of the feedback influences learner achievement and interest [7]. Attention to this aspect can be seen in more recent models of feedback [28, 27]. The assumption in medical education is that feedback is related to tasks or discrete knowledge thus narrowing feedback to vocational competence as opposed to capability. Methods of 'giving' feedback, as described in the section above, assume a focus that may have inadvertently reinforced a task-focussed philosophy. Such an approach may not meet more personal aspects of development, for example professional identity formation and self-regulation, which in the long term may be more beneficial for practice.

In challenging the myth that feedback is a teacher skill, how should the nuances of feedback be better articulated to accommodate and ensure that task, process and person-focussed demands of practice are developed? This next section reframes the notion of 'skill' by describing recent approaches to feedback training which focus on how to accommodate and respond appropriately to the relational features implicit in feedback interactions.

Reframing: Relationship-based approaches may be more useful

Two relation-based approaches gaining ascendency in medical education that eschew the feedback sandwich are the 'educational alliance' and the relationship, reactions, content, coach (R2C2). Both these approaches aim for a more dynamic and responsive feedback

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dialogue, recognising that feedback is a complex social interaction, influenced by those involved and the relationship, culture and context in which the interactions occur [9].

The educational alliance extends work in psychotherapeutics which identified that outcomes correlated to patients' perceptions of the strength of the therapeutic alliance [29]. Applied to medical education, the educational alliance consists of three key aspects: shared sense of goals, shared activities and bond. The focus on goals and iterative loops within and across encounters offers structure but is not prescriptive. Through establishing shared goals and activities an educational alliance is strengthened and then this can be leveraged for behaviour change [30]. The three components interplay in the sense that if an educator takes the time to discuss and negotiate goals and an agreement about how to work towards the goals, this demonstrates that the supervisor is invested in the learner therefore strengthening perceptions of trust and respect (i.e. the bond). Further, if the educational alliance is judged to be strong by the learner, preliminary research shows that trainees are more likely to disclose about themselves and to engage in positive feedback behaviours such as feedback seeking [5]. Importantly, trainees report that they are more likely to act on constructive feedback (even if worded very negatively) in the context of a strong educational alliance [5].

The R2C2 approach was developed through research on feedback in medical education informed by three theoretical perspectives: humanism, informed self-assessment and the science of behaviour change [31]. There are four phases: 1) relationship building, 2) exploring reactions to feedback, 3) exploring feedback content, and 4) coaching for change. There are guiding questions for each of the phases to facilitate the conversation. Preliminary research indicates that using the model prompted trainees and supervisors to think differently about feedback conversations as opportunities for learning and improvement – "working with" rather than "against" [32]. The trainees were more engaged with the R2C2 and feedback loops were established when supervisors and trainees returned to the goals [33]. Learning coach plans offered concrete action.

Shared educational principles across these two approaches include the importance of establishing (and re-establishing) relationships, discussion and setting of goals, active

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engagement of the learner, iterative feedback loops and a focus on learner development. Neither is prescriptive in flavour, but they offer structure, which is appreciated by educators [30, 33]. When feedback conversations are oriented towards improvement, it breaks the ritualised hang ups around positive and negative content and the myriad of behaviours (such as avoidance or sugar coating) described above. The purpose of the conversation is therefore clarified, and made possible, within a stronger educational relationship.

Challenge 3: Feedback is an input only

Contemporary feedback practice in higher education has been described as the "provision of hopefully useful information" [8(p2)] as 'hoping' is about the best we can do in a climate where the effect of the information is not monitored. The enactment of feedback in education has morphed considerably from the mechanism of feedback in biology and engineering where there is a set point/standard, an input and an output [8]. In education, there has been an over-investment in feedback as input, with the responsibility for ensuring output (or effect) perhaps residing in another field called 'learning'.

In workplace learning environments in healthcare, there is often less control in setting up nested tasks for learners to enable the translation we are 'hoping for' in the feedback process[34]. Increasingly there is disruption to longitudinal supervisory relationships so that educators are not present to observe changes in learners after feedback encounters [35]. A prescriptive 'dose' of telling de-emphasises teachers' adaptive expertise in feedback. Adaptive expertise would involve the teacher (or peer) responding nimbly to learner cues, knowledge of their progress and their individual goals. We have a large body of research over the past two decades suggesting that rituals characterised by telling (even sensitive telling) do not have the desired effect. "Learners do not always learn much from purely being told, even when they are told repeatedly in the kindest possible way"[36].

In a recent study of feedback in Australian universities, both staff and students still expressed ideas that feedback constituted comments on work, with the majority of students reporting that they were not able to act on the feedback information provided [37]. The authors argued that "feedback should be judged by looking at what students do with

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information about their work, and how this results in demonstrable improvements to their work and learning strategies" [37]. A refocus on the outputs of learner engagement with performance-relevant information may not only strengthen learners' engagement in feedback processes (the proof is in the pudding) but may also help all parties to set up the conditions that promote feedback that has an effect. That is, it is only by looking for the effects, that there can be a critical analysis and calibration (if needed) of the information and processes that help to generate the outputs.

***Reframing: Learner engagement with feedback processes produces effects (beyond the immediate task*)**

The multiple outputs of feedback

In terms of feedback research, there is some consideration of feedback as output. Many feedback studies take a skill or knowledge assessment, provide the learner with information about their performance, and then re-test that same, or a closely related task within a short timeframe. While we recognise that good feedback information can change performance (and that improved performance is important), a focus on specific knowledge attainment or skill performance is only one part of the picture. The possibility of multiple effects provides a significant challenge to measurement [38] but should not preclude attempts to do so.

So what do we know about how feedback influences learners in the broadest sense? There is no simple relationship between feedback and performance [39]. From a seminal meta-analysis, Kluger and DeNisi found that more than a third of feedback interventions were associated with worse subsequent performance [40]. What was striking was the variability in approaches taken by the researchers to test hypotheses and also what they were testing. What can be taken from this and subsequent work is that when considering feedback, attention needs to be paid to what requires development; the task, the process or the person[41].

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Other outputs may be considered if we take a longer term and broader understanding of feedback. These may include improved understanding of standards of work[2], improved skills or learning strategies[11], improved learner capability for judging the quality of work, i.e. evaluative judgement [42, 43], changes in learner professional identity [44] and changes in learner motivation[40]. It may be that these gains or outputs have a life beyond the focus of the task that triggered the feedback information in the first instance. We do not have enough studies to indicate what the multiple effects of feedback are, namely because we have had a limited vision as to what constitutes feedback. That is, feedback as comments on work, or justification of marks[45]. We have also adopted a limited perspective on what traces to look for in terms of feedback impact. Identity formation is one area where research is starting to build and we will further unpack the relationship between feedback processes and identity formation below.

Foregrounding professional identity as an output of feedback

Professional identity (or possible identities) are neither fixed nor unitary, rather they are relational in that an individual responds to various experiences, situations and people through an evaluative and emotional process. From this engagement an individual constructs, or renegotiates and reconstructs, their professional identity [46]. Individuals develop meaning about their professional selves through feedback experiences [47]. Conversely the absence of regular feedback has been found to hamper professional identity formation [44].

Feedback from a range of sources including professional peers and clients/patients can influence professional identity [46, 48-50]. However, the contribution of feedback processes to professional identity formation is more nuanced than simply receiving a palatable message and responding accordingly. Rather it is "others' reactions" that help to shape professional identity[51, 52]. Ibarra [51] identified two ways in which the reactions of 'others' shaped identity through feedback processes: 1) when others validate (or fail to endorse) new learner behaviours and 2) by signaling ways to improve.

External parties confer identity by providing social signals about who one is becoming. By gauging others' reactions to their behaviour, learners begin to understand who they are and

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who they want to be [53]. An example of this is when pharmacy students are on clinical placement and attempt to enact their pharmacist identities e.g. provide medication advice and find that clients/patients are not receptive to this advice [44]. These reactions left the students feeling confused about who they were becoming. Conversely, feedback reactions such as being well received by patients can validate a learner's sense of professional self [47]. Thinking about feedback in these broader and socially-situated terms may explain why learners start to act differently in clinical environments, no matter what they are 'told'.

Equally, professional identity is shaped by feedback cues which signal ways to improve [52, 50]. When examining medical residents' construction of professional identity, Pratt *et al*[52] found that residents' interactions with, and observations of, role models when combined with feedback, helped to develop professional identities by shaping behaviour. However, the signals for improvement and the type of feedback processes shaping identities described in this study were in no way balanced, rule-based or step-wise. Instead, the feedback was experienced as either 'bites' or available through an active 'grapevine'[52]. Feedback 'bites' were instances where residents were yelled at when they made mistakes while the feedback 'grapevine' occurred when residents compared their performance with their colleagues through an active informal network of communication. They noted that these informal cues on the grapevine were faster and more helpful then formal evaluations. Whilst these feedback experiences seem less than ideal, and certainly not sugar coated, Pratt and colleagues argue that experiences were shaping identities by shaping behaviour, in that, "by learning what they, and others, were doing wrong and consequently how the work should be performed, they changed how they viewed themselves as physicians" [52].

These examples of feedback engagement shaping professional identity formation (output), further adds to the argument that feedback is a process enacted over time, not a discrete 'input'. We need to broaden our view of the notion of feedback and dedicate more attention to the effects of information exchanges on the learner. This comes with the acknowledgement that the effects may be more variable than changes in learner skill. Another advantage of focusing on outputs in feedback is that the forward-facing orientation of the process can override the emotions of feeling criticised. 'Feedback as telling' has a backward facing orientation that lingers on the past and leaves the learner with little

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agency. Even within brief encounters, research highlights, that a focus on effects such as 'acting as a consultant' or future career specialty are possible through feedback dialogue and in reference to co-constructed goals [30]. With better design of feedback as an iterative process with nested tasks where both parties are offering perspectives and strategies, there may well be less of an imperative for educator linguistic gymnastics, and less risk of threat to learner identity.

Conclusion

Feedback in health professions education is reliant on myths that we feel are problematic. In this paper we suggest that the practice of feedback resembles an educator-delivered monologue rather than a forward-facing process enacted over time. With this retro-orientation, it is little wonder that learners become defensive or disengaged when they are reminded of their faults, particularly when the information is unsolicited.

In this paper we tackle three myths of feedback: that feedback needs praise-criticism balancing rules, that feedback is a skill residing within the teacher, and that feedback is an input only. Involving the learner in feedback processes may be the healthiest way to negotiate the potential for feedback interactions to elicit emotional responses. We also argue for the importance of learners, teachers and feedback researchers in hunting down the effects of the information exchanges, and speculate that these effects may not necessarily be immediately observed. Not only is this commitment to tracing effects likely to help learners to improve their practice, it also helps us to better understand, and calibrate, feedback approaches. Without a future focus we do not have the data to make commentaries about whether or not feedback is effective. We also focus on a narrow band of effects, such as technical skill development, at the expense of understanding the impacts of feedback on professional identity development, or other related capacities such as evaluative judgement, and motivation for learning.

We argue for more concentrated efforts in examining the socially-embedded nature of feedback, privileging the role of trust in dialogues with remits of learner and teacher vulnerability and co-construction of knowledge. If our practices are underpinned by values,

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rather than rules, both parties are granted more flexibility to navigate bumpy or unfamiliar terrain which is inevitable in the business of developing people. Recent large-scale studies reinforce that learners and teachers still see feedback as something that the teacher needs to cook up (or assemble when it comes to the sandwich). Good chefs are expert at handling ingredients, and they are also cognisant that their customers (learners) have appetites and allergies that need to be accommodated. We have presented evidence to suggest that it is time for learners to join the table. Puncturing the well-established rituals, and reframing practice using educational principles, rather than survival principles, may give us the effects we are after.

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